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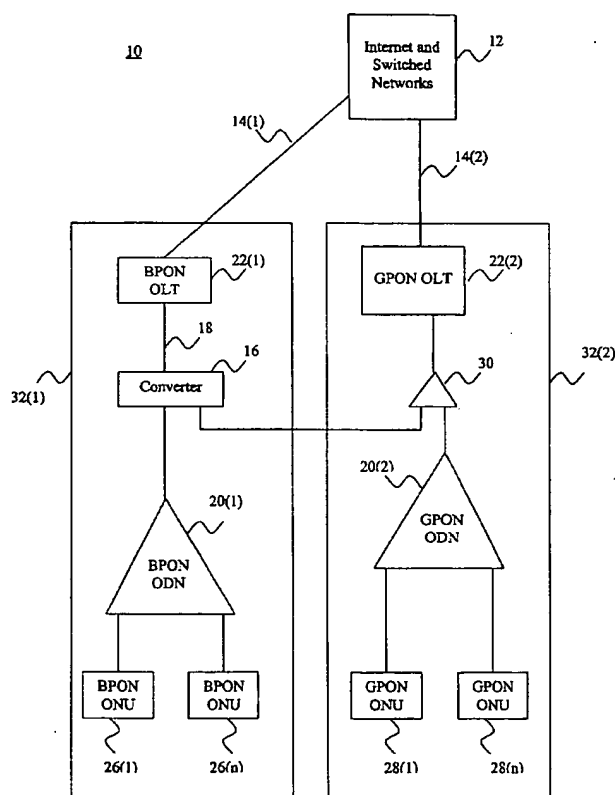
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(54) Title: METHOD AND APPARATUS FOR COMMUNICATING BETWEEN A LEGACY PON NETWORK AND AN UP-
GRADED PON NETWORK



(57) Abstract: Methods and apparatuses consistent with the present invention facilitate the transition from a legacy network [32(1)] to an upgraded network [32(2)] by providing a converter [16] that communicates between the legacy network and the upgraded network. The converter [16] is provisioned such that legacy devices, such as Optical Network Units (ONUs) [26], appear as upgraded devices to the upgraded network [32(2)], while the upgraded network [32(2)] looks like a legacy network to the legacy devices.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 2004/008318 A (FLEXLIGHT NETWORKS LTD; SHRAGA, EYAL; MARMUR, OREN; RON, ILAN) 22 January 2004 (2004-01-22) claims 1-10	1-19
A	WO 03/010904 A (MARCONI COMMUNICATIONS, INC; MARCONI INTELLECTUAL PROPERTY INC) 6 February 2003 (2003-02-06) the whole document	1,7,15
A	DE 44 06 509 A1 (SIEMENS AG, 80333 MUENCHEN, DE) 31 August 1995 (1995-08-31) the whole document	1,7,15
A	US 2003/048801 A1 (SALA DOLORS ET AL) 13 March 2003 (2003-03-13) the whole document	2,10,15
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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 351 582 B1 (DYKE PETER JOHN ET AL) 26 February 2002 (2002-02-26) claims 1-9	11, 14
P, X	US 2004/136712 A1 (STISCIA JAMES ET AL) 15 July 2004 (2004-07-15) the whole document	1-19

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 2004008318	A	22-01-2004	US 2004202484 A1	14-10-2004
			AU 2003237587 A1	02-02-2004
			CA 2491222 A1	22-01-2004
			EP 1532527 A2	25-05-2005
			WO 2004008318 A2	22-01-2004
WO 03010904	A	06-02-2003	WO 03010904 A2	06-02-2003
			US 2003076560 A1	24-04-2003
DE 4406509	A1	31-08-1995	EP 0673180 A2	20-09-1995
US 2003048801	A1	13-03-2003	WO 03017545 A1	27-02-2003
US 6351582	B1	26-02-2002	NONE	
US 2004136712	A1	15-07-2004	WO 2004064263 A2	29-07-2004